

SOS 4.1: KML Data

SOS Version 4.1 now supports Keyhole Markup Language (KML) data in addition to the previously existing movie and image formats. KML is a popular specification and actively used with Google Earth for displaying data on a sphere. The initial SOS KML capability supports a limited set of the entire specification, which includes many of the commonly used KML features you would typically display in Google Earth. More information on KML itself can be found here: <https://developers.google.com/kml/documentation/kmlreference>

An SOS playlist can reference both KML and the compressed KMZ formats using the `layerdata` keyword. See the SOS 4.1 Playlist Reference Format Manual for more details, along with the KML playlist provided with the SOS 4.1 Release Notes.

Implementation Notes

Typically, KML files are used with Google Earth which allows users to display information on a virtual sphere similar to SOS. There are a couple of differences to be aware of. Google Earth has additional space around the sphere where legends, icons, or other meta information can be displayed. SOS has only the sphere for displaying data. By default, all ancillary information is displayed at point 0° North, 180° East. Each subsequent piece is staggered from this starting point. This is user configurable. Within the playlist, use *kmllegendxoffset* and *kmllegendyoffset* to specify a new location.

KML Placemarks or Icons referenced in KML may appear small on the sphere. Additional playlist parameters have been included to scale icon's to make them more visible on the sphere. Use *kmlplacemarkscale* to scale these features if necessary.

More information on these commands can be found in the SOS 4.1 Playlist Reference Format Manual.

Special Notes

Often, KML files reference remote data via a web address. KML files of this nature require SOS to have access to the internet to retrieve these files. Depending upon your network connectivity and the number of external links referenced in the KML file, the initial load may take some time. SOS will perform local caching of downloaded files and subsequent loads will perform faster.

*** It is strongly recommended to test KML files prior to any presentation *** to insure data is cached locally and the presentation is not delayed by waiting for remote files to be retrieved.

Technical Details

When an SOS playlist references a KML dataset, SOS will parse the file and store any temporary or cache information in the system temporary directory. The default is “/tmp” on SOS systems.

Limitations

The SOS Version 4.1 Release does not support the entire KML specification. Here is a list of major items not currently supported in this release: Tours, Fly To, Features with 3 Dimensions, Resource Map, Model's, Regions. If KML data or KML data isn't displaying correctly, please contact the SOS support team and include the problem KML file in your message.

You cannot have multiple KML layers defined within a single playlist item because we do not support time matching capabilities between various KML files. Future versions should allow multiple static KML files.